

-2-

Amendments to the Claims

Please cancel Claim 23. Please amend Claim 14. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

Claims 1-13. Cancelled.

14. (Currently Amended) An isolated cell population derived from human bone marrow, wherein greater than about 91% of the cells of the cell population co-express CD49c and CD90, and wherein the cell population has a doubling rate of less than about 30 hours.

Claims 15-18. Cancelled.

19. (Previously Amended) The isolated cell population of Claim 14, wherein the cells have the potential to differentiate into a preselected phenotype.

20. (Previously Amended) The isolated cell population of Claim 19, wherein the preselected phenotype is at least one member selected from the group consisting of a chondrocyte, an astrocyte, an oligodendrocyte, a neuron, an osteocyte, an osteoblast, an osteoclast, a cardiomyocyte, a pancreatic islet cell, a skeletal muscle, a smooth muscle, a hepatocyte and a retinal ganglial cell.

21. (Previously Amended) The isolated cell population of Claim 14, further including expression of p21 or p53 after between about 20 to about 50 population doublings of the cells, wherein expression of p53 is a relative expression of up to about 3000 transcripts of p53 per 10^6 transcripts of an 18s rRNA and expression of p21 is a relative expression of up to about 20,000 transcripts of p21 per 10^6 transcripts of an 18s rRNA.

Claims 22-24. (Cancelled)

-3-

25. (Previously Amended) The isolated cell population of Claim 14, wherein the cell population does not express CD34 and/or CD45.
26. (Previously Amended) The isolated cell population of Claim 14, wherein the cell population further expresses at least one trophic factor selected from the group consisting of BDNF, IL-6, NGF and MCP-1.

Claims 27-96. Cancelled